# 8

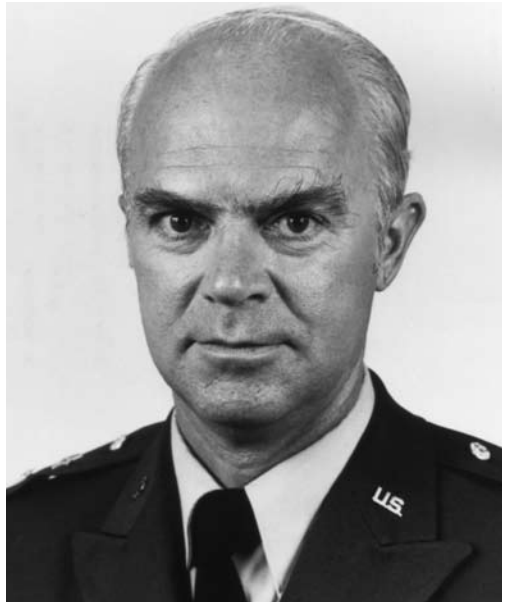
# *DECADE OF CONSOLIDATION AND GROWTH*

It took only the stroke of a pen in 1974 to establish the United States Army Engineer Division, Europe (Europe Division or EUD) of the Corps of Engineers, but almost four years—until 1978—to develop a cohesive organization. Brig. Gen. Norman G. Delbridge, Jr., who succeeded Brig. Gen. Louis W. Prentiss, Jr., as commander of the Europe Division, felt that he had overcome the tensions that characterized the transition to management of military construction in Europe by the Corps of Engineers. Taking leave of EUD in July 1978, Delbridge observed: "The last two years have been a challenging period; challenges will continue, but … flowers are now ready to bloom. We have procedures, more people on the way … [a] closer and warmer relationship between everyone here in EUD."[1]

From the base that Prentiss and Delbridge had established, their immediate successors concentrated on the challenges facing a growing but fundamentally stable organization. In the five years after Delbridge's departure, two commanders (Brig. Gens. Drake Wilson and George K. Withers, Jr.) strove to adjust the division's personnel allotment to fit its workload, to balance its management responsibilities, and to address and meet the needs of the division's customers. All of the division commanders' management decisions had to be made in light of changes in the North Atlantic Treaty Organization's (NATO) strategic thinking, shifts in the European political order, and new U.S. military weapons.

After five years of relative stability in leadership, in fewer than thirty months between June 1983 and the autumn of 1985, three brigadier generals—Scott Beecher Smith, James W. van Loben Sels, and James W. Ray—commanded the division in swift succession. The rapid turnover of leaders and their varying styles of management challenged division personnel. This period of turmoil coincided with a marked expansion of workload in the 1980s, which in turn prompted a tightening of management control. By 1986 balance had returned once again, and the division enjoyed a few years of stability and a sense of confidence in their future as the end of the decade approached.

Delbridge's successor, Brig. Gen. Drake Wilson, arrived on 15 August 1978 to assume command of the Europe Division. Before this assignment Wilson had served as deputy director of civil works at the Office of the Chief of Engineers (OCE) in Washington, but he was no stranger to Frankfurt. As an Army dependent, Wilson had lived in Germany and had graduated from the Department of Defense's Frankfurt High School in 1947. He attended the U.S. Military Academy, graduated in 1952, and returned to Germany as a junior officer assigned to the United States Army Construction Agency, Germany (USACAG), from 1958 to 1961. Wilson also served with NATO's Central Army Group in 1970–1971 and in Stuttgart on the engineer staff of VII Corps from 1971 to 1973.[2]



*General Wilson*

In his first staff meeting at EUD, General Wilson emphasized his desire to be kept informed of issues and his intention to let people do their work without intervening. Wilson's subordinates described him as comparatively formal, straightforward, and decisive. They remember his two-year tour as a relatively quiet period despite the division's uneven workload.[3]

## Balancing Manpower and Workload

Like Prentiss and Delbridge, Wilson confronted a personnel situation characterized by sharp fluctuations in the number of staff and in the volume of work. Unfortunately, staff size and workload frequently moved in opposite directions. Most American civilian employees signed contracts to work three years in Europe. Because of the time needed for processing in and out and for learning how the division functioned, only two years of a term proved to be fully productive. Frequent turnovers contributed to the ongoing need to recruit experienced Corps employees from the United States.[4]

The recruiting trip that Delbridge organized to the United States in May 1978 had been very effective. At the end of October, however, President Jimmy Carter announced a hiring freeze. Although the freeze was lifted at the end of January 1979, ceilings for new hires were set in line with the overall reduction in numbers for the Army. These ceilings

*Europe Division workload included build-to-lease family housing projects for the Hanau community.*

were below those anticipated when the hiring had taken place under Delbridge, and General Wilson had to manage the size of his staff and the workload within these new limits.[5]

## *Personnel Manipulation*

Throughout 1978 Joe G. Higgs and Jose Cruz, EUD's chiefs of engineering and construction, respectively, worked to reduce the huge backlog of contracts that had accumulated during the division's initial years. By the spring of 1979, as the workload came under control, Wilson realized that EUD had too many people. As one way to reduce staff, Wilson told his managers to facilitate the return of willing U.S. civilian employees to the United States as they completed employment contracts.[6]

The departure of Americans caused German and third-country employees to worry about a possible reduction in personnel in the field offices. The matter caught the attention of EUD's Works Council, the body elected to represent local employees as authorized by USAREUR and the NATO Status of Forces Agreement (1963 supplement).[7] Hasso Damm, who had served since 1974 as the full-time chairman of the Works Council, noted that the increases in personnel at EUD between 1975 and 1979 were primarily in positions for Department of the Army civilians (DACs). Accordingly, he argued, the personnel cuts should come from this group and not disproportionately from the Germans and third-country nationals.[8]

After meeting with Damm, Wilson authorized a memorandum stating that the total number of local national employees would not be reduced, although geographic shifts of personnel might be made. On the broader issue of the proportion of these workers in the division's workforce, Damm obtained an oral commitment from General Wilson that reductions, when necessary, would be taken first and more heavily from the DAC roster of employees. This oral agreement, which Damm confirmed with each successive EUD commander, produced a core group of locally hired workers who provided continuity for the organization.[9] As a further gesture of support for the non-American workers, Wilson designated the chairmanship of the Works Council a full-time position, even though German law did not require a full-time chairman for a council representing fewer than 300 local national employees.[10]

During 1979 and 1980 the number of employees at EUD continued to fluctuate, even though the workload was increasing—an irony noted by Wilson. For most of fiscal year 1979 the division averaged 860 employees. Between January and June the division cut twenty-five positions as a result of Army-wide cutbacks.[11] More cuts were made in August 1979, and by 30 September EUD had reduced its staff to 707, the same level as before Delbridge's recruitment campaign in 1978. The number of employees increased to an average of 780 throughout most of fiscal year 1980 but dropped back at the end of the year to 690. The division operated in effect with one level of staffing throughout most of the fiscal year and then, to meet authorized levels, reduced its staff by releasing temporary employees and leaving positions unfilled. Once the division reported the staff numbers, the temporary positions could be refilled quickly.[12]

Wilson and his management team worked hard to build a strong core staff. In the spring of 1979 Wilson requested authorization from OCE for thirty-one new upper-grade positions (GS–13 to GS–17) to improve middle management and to enhance the level of technical proficiency in the division. OCE eventually approved fourteen positions, most of them in the Engineering Division, where Higgs tried to create a grade structure that would attract people from districts in the United States.[13] To provide more continuity and to reduce turnover, Wilson changed his earlier policy guideline and began actively encouraging American civilians to remain in Europe for up to five years.[14] Recruiting continued to be a major activity for the division.[15]

To promote efficiency and accountability, Wilson revised the roles of the two colonels serving as deputy division engineers by assigning each deputy a principal area of responsibility. He gave Air Force programs and special projects, particularly schools, to Col. Glen Smith. Col. Valentine Carrasco oversaw all work for the Army, which was the bulk of EUD's program. Wilson explained the arrangement by saying, "The heaviest dollar volume, Carrasco had; the most problems, Smith had." Both deputies and the commander had authority to sign contracts.[16]

Under Wilson's command William E. Camblor finally received the promotion that he had first sought while director of USACAG in 1959.

While assigned in USACAG as a junior officer, Wilson worked closely with Camblor and appreciated his administrative skills. Early in his tour at EUD, General Wilson requested approval to upgrade Camblor's position, assistant division engineer for intergovernmental affairs, to a GS–16. He then recommended Camblor for the position, and in 1980 Camblor was promoted to SES–4, a ranking in the Senior Executive Service equivalent to GS–16.[17] That promotion gave the organization two SES positions; Joe Higgs had been promoted in July 1979 when the Senior Executive Service was established.

## *Managing Resources*

In October 1979 an OCE command inspection team suggested that EUD needed to rethink how it managed construction, particularly the structure of field offices that reported to the Construction Division. For several months the staff examined workload and flow of work at headquarters and in the area offices. The area offices had been established in 1974 as coordinating and reporting offices, while resident offices handled direct project oversight. The military officers and civilian staff in both the area and resident offices expressed frustration and dissatisfaction with the multiple levels of review that they faced and with the delays in getting decisions from headquarters.[18] To address these concerns, the chief of construction, Jose Cruz, established a task force led by Dwight Beranek, chief of the Construction Management Section. The reorganization recommended by the task force—intended to improve communications and to speed decision making within headquarters in Frankfurt—took effect at the beginning of the new fiscal year, 1 October 1980.[19]

Several measures implemented along with the reorganization were designed to respond specifically to the issues raised by field personnel. The Supervision and Inspection Branch was split into two sections, and the number of staff positions was increased to augment technical support to the field. Personnel were also added in office engineering to improve management of funds, troop construction, and accountability for real property. The Contract Administration Branch was reorganized into three sections, each handling projects for a specific geographic area. Construction managers were assigned to serve specific area offices rather than specific programs.

The field offices themselves underwent significant change. The division redefined the old Central, Southern, and Southwest Area Offices and closed the Mediterranean Area Office. The new area offices had larger workloads and a greater number of personnel. Several area offices took the name of the city in which they were located: Kaiserslautern, Frankfurt, Stuttgart, Nuremberg, and Würzburg. Only the Northern Area Office kept its name and location. (*See Map 16.*) The division set up resident offices in Vicenza, Italy; in Sigonella, Sicily; and in Athens, Greece, and retained The United States Engineer Group (TUSEG) Resident Office, which had been reestablished in 1979 in Incirlik, Turkey.[20] All area and


*Map 16*

resident offices reported directly to the Construction Division. The reorganization centralized legal services in headquarters, and lawyers Terry Trowbridge from the Mediterranean Area Office and Carl Korman from Stuttgart moved to Frankfurt.[21]

The permanent orders signed by General Wilson stated that changing the status of any unit to or from an area office or resident office would no longer require additional permanent orders. The basic field structure established in 1980 changed little during the following decade. As changes in workload dictated, the division closed the Sigonella office and upgraded Heidelberg and TUSEG to area offices. The new administrative arrangement allowed EUD to establish other resident offices and project offices as needed.[22]

## Organization Headquarters

In 1979 General Wilson agreed to mandate a single form for the organization's name. Rather than continue the vacillation between the use of European Division and Europe Division, Wilson ordered that Europe Division be used consistently; it was the form that Headquarters, United States Army Corps of Engineers (USACE), in Washington preferred.[23] Because this decision required a new sign on the building and new letterhead, it seemed an appropriate moment to give the headquarters building a commemorative name.[24] The division counsel, Allan B. Aaron, proposed that the headquarters building be named in honor of Leonard L. Phillips, who had served with USACAG, Engineer Command (ENGCOM), and EUD between 1962 and his death in February 1976. Before serving with the Corps, Phillips had participated in the Nuremberg war crimes trials. In 1960 he joined the Corps of Engineers as a trial attorney while remaining an Army reserve officer. As general counsel for ENGCOM and division counsel for EUD, Phillips worked on legal issues surrounding the relocation of U.S. forces from France; helped negotiate the first construction agreement with the government of Belgium; drafted and negotiated the prototype Guarantee Rental Housing Agreement that became the United States Army, Europe (USAREUR), standard; and helped create the legal basis for implementing the Stem to Stern program.[25] Colleagues praised his precise legal mind, integrity and loyalty, wit, and reserved demeanor.[26]

Wilson supported the request to name the building after Phillips—a civilian—noting that more than 60 percent of the personnel working in the division were American civilians. At the annual awards ceremony on 11 July 1980, the headquarters building on the former I. G. Farben property in Frankfurt was officially named the Phillips Building.[27]

## Addressing EUD Customers

In mid-September 1980 Wilson, by then promoted to major general, left EUD and returned to Washington. As of 16 June 1979, the Corps had a new status as an Army major command; its headquarters became U.S. Army Corps of Engineers. Wilson became director of military programs at the newly designated Headquarters, USACE (replacing the Office of the Chief of Engineers), and General Withers succeeded Wilson as commander of the Europe Division.


*Phillips Building in the Mid-1980s*

General Withers, a 1956 graduate of the U.S. Military Academy, served in Europe from 1974 to 1976 as commander of the 24th Engineer Group, predecessor to the 18th Engineer Brigade. Before being assigned to EUD, Withers served in the Department of the Army's Office of the Deputy Chief of Staff for Operations. He projected a quiet, reserved, and scholarly demeanor.

During his tour as commander of the 24th Engineer Group, Withers perceived a "general dislike of EUD among much of the U.S. Army in Europe." This attitude disturbed him, and he set out to develop a new climate. He particularly hoped to fulfill the needs of the commanders of V Corps, VII Corps, and 21st Support Command—who did not think they were getting enough support from the engineers in Frankfurt—and the Directorate of Engineering and Housing (DEH) in each of the military communities. His other management priority was to keep up with the greatly expanding military construction mission.[28]

The substantial growth in the defense budgets in the late 1970s created a burgeoning workload. New weapons systems and the improvement of facilities in Europe scheduled under these enlarged budgets increased the design and construction activity for EUD. To emphasize his commitment to better service for the communities, Withers raised the managerial level at which EUD handled this support. He created the position of assistant division engineer for DEH support and appointed Lt. Col. Robert Tames to the position in January 1981. Tames, who reported to the chief of engineering, Higgs, was expected to meet individually and frequently with

the facilities engineers in their communities. Under the concept of "one-stop installation support," Tames was the person in EUD to whom community commanders and engineers could turn for help. By all accounts this strategy worked, and the division retained the position, filling it successively through the 1980s with Lt. Cols. Robert O'Toole, John Moravec, Ray Powell, and Douglas Lamothe.[29]

*General Withers*

In his first weeks on the job, Tames visited every one of the more than thirty USAREUR communities. As Congress began to fund improvements in living conditions for soldiers, and as Operation and Maintenance, Army (OMA), money began to arrive, the community commanders and DEHs realized that they did not have the capacity to do either the requisite design or the construction themselves. They gave the work to EUD—somewhat reluctantly according to General Withers—and the division responded. Technical assistance to the facilities engineers for projects to maintain and to repair barracks came from the Facilities Support Section in the Engineering Division.[30] In 1981 Higgs appointed Steve Kupec as chief of the Facilities Support Section. By the end of fiscal year 1982, Kupec's section had grown from nine to thirty-six people and handled over $50 million of work on 134 projects.[31] (*See Map 17.*)

In another effort to promote better cooperation between the Army engineers and the military communities, General Withers joined the deputy chief of staff, engineer (DCSENG), at USAREUR, Maj. Gen. Henry J. Hatch, Jr., in convening two-day meetings to review the OMA projects. The meeting location varied: EUD headquarters, an area office, or Hatch's office in Heidelberg.[32] Both Hatch and Withers attended, and they urged commanders from VII Corps, V Corps, 21st Support Command, 26th Support Group, and Seventh Army Training Command to attend. The generals chaired the meetings as an inducement for the colonels to attend. According to Higgs, he and Withers wanted to engage and work directly with unit commanders rather than with subordinates.[33]

The effort succeeded in expanding the EUD workload. In recognition of Higgs' efforts in leading the Engineering Division through this expansion, the Society of American Military Engineers awarded him the 1981 Wheeler Medal, named in honor of Lt. Gen. Raymond A. Wheeler,


*Map 17*

a former chief of engineers. The award recognized Higgs' leadership in managing a "sixfold increase in the Military Construction Program for Europe," in achieving the substantial reduction of the design backlog, and in increasing contract awards.[34]

## Persistent Manpower Problems

General Withers faced one of the cyclical discrepancies between staff numbers and workload that beset EUD. Continuing problems in recruiting and retaining qualified people hindered Withers' ability to keep up with the volume of work and meet schedules. In reports to Headquarters, USACE, he repeatedly argued that EUD had an inadequate number of staff positions, inappropriately graded positions, poor leadership in some key divisions and branches, and too much turnover.[35]

In March 1981 EUD had 730 people, just slightly above the year-end levels maintained by Delbridge and Wilson from 1978 to 1980. Turnover continued, particularly in the lower grades, where the rate was about 120 percent a year.[36] Many of the clerical workers were military dependents and subject to frequent moves. To combat turnover in the Resource Management Office (formerly Comptroller's Office), Withers upgraded positions to make them more attractive to Corps employees working in the United States.[37]

Anticipating the higher workload projected for fiscal years 1982 and 1983, Withers asked Headquarters, USACE, for more officer spaces and about 100 additional civilian spaces.[38] Because EUD had about 75 vacancies, he also organized a recruiting trip to the United States. In April 1981 a recruiting team went to districts in Norfolk, Mobile, Fort Worth, St. Louis, Omaha, and Seattle and to headquarters in Washington.[39] The team contacted 1,000 potential candidates, but only 42 signed on. By the autumn of 1981, EUD had 855 authorized spaces but only 740 employees.[40]

To attract strong civilians to the division, Withers requested approval to upgrade two positions—chief of resource management (to GS–15) and chief of construction (to SES). With approval of the new grades, Withers took the opportunity to search for candidates outside his current staff. He explicitly told the comptroller, Randolph S. Washington, and the chief of construction, Jose Cruz, that the promotions were not necessarily theirs. For both positions Withers chose applicants new to the division and to Europe.

Withers selected Ray Walker from Picatinny, New Jersey, as the new chief of resource management. Although offered the position of deputy comptroller, Washington did not want to serve as a subordinate in a division that he had headed since 1974. In mid-May 1981 he left for a job with the U.S. Support Command to Supreme Headquarters, Allied Powers Europe, in Belgium.[41]

Withers selected John Blake as the new chief of construction, and Cruz returned to the Fort Worth District. Blake had a wide range of experience managing overseas construction for the Corps. He had served in Korea, in the Marshall Islands, in the Mediterranean Division, in Saudi Arabia, and, before his arrival in Frankfurt, in Israel, where the Corps built two air bases that were part of the Camp David settlement between Israel and Egypt. Blake liked to be in the field, and he knew firsthand the difficulties of working with sovereign nations and managing both people and

projects in remote locations. In November 1981, just after arriving at EUD, Blake received the Meritorious Civilian Service Award, the Army's second highest civilian honorary award, for his work in Israel.[42]

The effort that Withers and his staff devoted to stateside recruiting finally began to pay off by early 1982. Both Blake and Walker were on board, and Withers reported to the chief of engineers that overall strength had grown from 740 in September 1981 to 830 in January 1982. Withers was pleased with the successes but frustrated by continuing problems in recruiting. Corps district leaders in the United States let employees move to overseas assignments only grudgingly, and coworkers resented employees who went overseas but retained reemployment rights in the stateside district. Nevertheless, in May 1982 EUD's authorized strength reached 906. German and third-country employees made up 276 of the total.[43]

The continuous growth in personnel created overcrowding at EUD headquarters. In 1978 the division began leasing space a few blocks from the I. G. Farben complex. In 1979 EUD constructed the first annex to the headquarters building; work began in the spring of 1982 on a second annex. Completed by October 1982, the second annex accommodated ninety employees.[44] This, too, was insufficient, so EUD rented a building in the Dornbusch area of Frankfurt. Initially, the Civil Section of the Technical Engineering Branch and the master-planning unit shared the Dornbusch offices with the Frankfurt Area Office, but soon the area office moved to leased space in Fechenheim, another area of Frankfurt.[45]

### *Developing the Engineering Division*

Master planning developed as a significant new activity in EUD efforts to provide services to the military communities in Europe. While serving as the USAREUR engineer in Heidelberg, General Prentiss came to recognize the possibilities for the division to help the military communities develop individual master plans for their complexes and facilities. In January 1977 he raised the issue with the chief of engineers, Lt. Gen. John W. Morris, by reporting that there was no entity in Europe able to review and comment on master plans developed by the communities. Because he knew that EUD did not have the capacity to handle the assignment, Prentiss began to search for assistance from a private sector contractor.[46]

Joe Higgs, who arrived at EUD in February 1978, grasped this situation as an opportunity. Higgs wanted to expand the capability of his Engineering Division so staff could develop master plans for USAREUR communities and then help them prepare the project descriptions and paperwork to submit projects to Congress for funding. Master planning at EUD was still handled by only one man, Vic Schulman, so Higgs looked for help. The chief of engineering at headquarters approved the EUD request for funds from the OMA budget to hire three people for six months.[47]

By the time General Withers took command in late 1980, the division had six people in master planning and support from USAREUR to expand

this service. By the end of 1982 the Master Planning Section had grown to thirty-eight. Work had increased from eight contracts involving thirty projects, representing architect-engineer fees of $600,000, to a program of eighty contracts covering nearly 600 projects and totaling $50 million in architect-engineer fees.[48] Master planning had indeed become a major service provided by EUD to USAREUR's military communities.[49]

As chief of the Engineering Division's Planning Section, Terry Emmons coordinated the provision of master planning and other planning services to USAREUR, its six major subordinate commands, and their forty-eight communities and planning areas. At the beginning of 1981, his first full year at EUD, Emmons' section handled 40 projects. By the end of the year the number was 250, and Emmons was named Employee of the Year for 1981. Under his leadership the division developed a two-week master-planning course, prepared planning reference manuals and handbooks, and set up a program to provide definitive drawings for improvements that the military communities routinely requested.[50] On 1 July 1982, the Planning Section became the Planning Branch with three sections: Engineering Systems, Future Development, and Project Support.[51]

Beginning in the mid-1980s, EUD contracted with U.S. architect-engineer firms to develop master plans for all USAREUR communities. The results were mixed. The first firms hired had experience in master planning; but as the workload grew larger, EUD had to use firms with less experience in planning and often with only minimal familiarity with Europe. In hope of furnishing their customers in the U.S. military communities with better service, Higgs and Emmons turned to German architect-engineer firms.[52]

At a minimum, the planning studies conducted under EUD auspices provided an inventory of the eight hundred installations that USAREUR maintained. USAREUR kept very poor records of its facilities: the number and condition of the rooms, the capacity of electrical plants, where sewer lines ran, and so forth. EUD's goal was to provide each user with a plan that described existing conditions and assigned projections for three phases of development: the first year, over five years, and over twenty years.[53]

In the summer of 1985 EUD hired a new chief of the Planning Branch, Kristine Allaman. Having worked for the Installation Support Activity, Europe, the agency that combined all the installation support activities that came under USAREUR's deputy chief of staff, engineer, Allaman viewed planning as a service and a supplement to the communities' own engineering work. Reflecting her strong commitment to customer service, she reorganized the staff, combining people with different technical and planning skills to form teams to provide comprehensive services to specific communities. She encouraged the teams to get into the field, attend local master-planning meetings, and show the participants what EUD could offer. A GS–14, Allaman remained for several years as EUD's highest-graded female manager.[54]

By 1987 the Planning Branch had grown to fifty-six people. It covered all its costs with fees paid by the customers requesting its services. By

then the services also included interior design, energy studies, and sewer studies. EUD offered customers three phases of analysis and projections: a computer-aided design and drafting system that generated basic information maps and analyzed existing conditions; tabulations of existing and required facilities, as well as plans and analyses oriented toward future development; and comprehensive studies of both existing and required utilities. The planners also offered communities a land-use plan, a total plan for future development, and a master-plan report that even someone who had no background in planning could understand. In the late 1980s the branch annually handled more than 450 projects and $50 to $60 million in contracts. The Planning Branch also managed an environmental program for USAREUR involving over ninety contracts with an estimated programmed amount of $12 million. The environmental program services dealt with concerns such as asbestos, soil and ground-water contamination, hazardous waste, landfills, and radon gas.[55]

In June 1988 master planning received additional impetus from a new program, Army Communities of Excellence, sponsored by General Carl E. Vuono, the Army chief of staff. This program promoted consistency in a community's physical appearance and function, the establishment of standards for all construction, and the use of installation design guides, all elements that EUD's master planners emphasized in their approach to the military communities.[56]

The expansion of master planning illustrates EUD's commitment to provide its customers with comprehensive engineering services. In addition, Higgs oversaw growth in other sections in the Engineering Division. Like planning, the Foundations and Materials Branch had only one engineer when Higgs arrived. Over time he increased this branch to seventeen people, and EUD used the added manpower to broaden the range and quality of services that the division could provide to customers.[57] During 1976–1988 the Engineering Division staff strength fluctuated but grew steadily overall. (*Table 5*)

## *Managing the Workload*

Although the Construction Division had been reorganized in the autumn of 1980, John Blake made additional changes after he arrived to head the division. Projecting a large increase in the number of construction projects and acting in accordance with his philosophy of decentralized management, Blake moved to streamline headquarters further and to give area offices even more authority. He saw that the division headquarters combined contract administration and construction management. Blake believed that the two jobs demanded totally different personal temperaments, making it difficult for one person to do both well:

> The guy who is the contract administrator has got to be someone who loves detail, who is willing to sit down and very meticulously write a mod[ification], go through the details, chapter and verse,

Table 5

Engineering Division Staffing, Europe Division
Fiscal Years 1976–1988

| Year | Personnel* | Year | Personnel* |
|---|---|---|---|
| 1976 | 161 | 1983 | 402 |
| 1977 | 184 | 1984 | 399 |
| 1978 | 271 | 1985 | 419 |
| 1979 | 230 | 1986 | 419 |
| 1980 | 230 | 1987 | 421 |
| 1981 | 261 | 1988 | 389 |
| 1982 | 363 | | |

*Year-end figures

checking numbers, making sure everything is lined up in the right order. A construction manager, on the other hand, is normally an out-going young fellow who is full of vinegar, runs around and makes arrangements for everything, pulls it all together.[58]

Blake moved the functions and staff concerned with contract administration to the area offices and retained a strong group of construction managers in Frankfurt. He also received approval to strengthen the area offices by upgrading the civilian position of deputy area engineer to GS–14, the grade equivalent to the military rank of lieutenant colonel held by the area engineers. Revised procedures reduced duplication of effort among project offices, resident offices, the area offices, and headquarters, particularly in preparation of contract modifications. Additional technical support positions strengthened area offices, and headquarters provided supplementary support.[59] Richard Grimm, who had served in the Stuttgart Resident Office in the late 1970s and who returned to EUD as deputy area engineer in Turkey in 1982, recalled that the changes made the division "a lot more streamlined, a lot more efficient. You could get [things] done so much faster."[60] Withers supported the decentralization because he too felt that deferring decisions to Frankfurt and the headquarters staff led to delays that added costs to construction contracts.[61]

Blake also had Withers' support in transferring responsibility for negotiating and awarding construction contracts from the Construction Division to the Procurement and Supply Division (later called the Contracting Division). Blake experienced firsthand the pressures of an end-of-year contracting cycle within a few weeks after his arrival when almost a dozen people were brought in from the area offices to handle

the paperwork. After that experience, which he described as a "three-ring circus," Blake wanted contracts handled by the Procurement and Supply Division as they were in other Corps offices. The current system had evolved because of dissatisfaction with a chief of procurement and supply that had since departed. The incumbent chief, Theresa Watson, was competent and respected; both Blake and Withers were confident that she could handle the contracting responsibility. Accordingly, the Construction Division returned authority to award construction contracts to the Procurement and Supply Division.[62]

## Construction in Turkey

The construction program developing in Turkey presented Blake with one of his first major challenges in the field. EUD had assumed responsibility for construction in Turkey in 1976 but had little to do. The government of Turkey had put U.S. military forces under provisional status in July 1975 because it felt that the U.S. Congress had broken the bilateral Defense Cooperation Agreement with Turkey by imposing the arms embargo after the Turkish-Greek clash over Cyprus. The provisional status curtailed American intelligence gathering, banned U.S. flights and cargo shipments through Turkey, and prohibited most new construction projects.[63]

In 1978 Congress lifted the arms embargo, and the two governments began negotiations for a Defense Economic Cooperative Agreement, signed in March 1980. In the new atmosphere, both the Army and the Air Force decided to undertake projects for the U.S. military assigned to Turkey. To support that decision, EUD sent a team led by General Wilson, Jose Cruz, and Joe Higgs to assess the extent of the work needed in Turkey and to establish the necessary diplomatic relations. After Congress approved funds for new construction to improve the living and working conditions and the security at Incirlik Air Base and five remote sites (Erzurum, Cakmakli, Corlu, Izmit, and Ortakoy) occupied by Army custodial artillery personnel, Wilson requested an Army captain to staff the TUSEG Resident Office.[64]

The designated officer, Capt. M. Stephen Rhoades, received a briefing in Frankfurt and arrived in Incirlik in July 1979 "with a set of plans under one arm and specifications under the other."[65] He had been sent to Turkey to identify contractors, solicit bids, and start a project. Rhoades had a bachelor's degree in systems engineering and a master's degree in civil engineering from the University of Florida but no prior experience in contracting and no experience in the Corps of Engineers.

With assistance from Herb Wooten, the long-time TUSEG employee serving as liaison at the Joint U.S. Military Mission Aid to Turkey, Rhoades located the office on the air base in Incirlik that TUSEG had abandoned when construction ceased. Rhoades reclaimed the quarters from the Red Cross, retrieved the office equipment and vehicles, and he hired a secretary. It took almost a full year to get TUSEG back into operation.[66]

The first site scheduled for an upgrade was in Erzurum, a difficult place to start. The city's name means the eastern edge of Rome, that is, the boundary of the old Roman Empire. Located on a high plain in the mountains, it is close to the Turkish-Russian border and east of Moscow. The weather is very severe—long, cold winters with abundant snow. The first contract called for bachelor officers' quarters, bachelor enlisted quarters, a multipurpose building, and interior refurbishing of a number of existing buildings, all designed with features to protect the troops from the extreme weather and to make the buildings solid and well insulated. The isolated location made troop comfort and recreation especially important. Over time the construction came to include a new dining hall, a racquetball court, a gymnasium, and covered walkways between buildings to avoid the snow that drifted to depths over ten feet.[67]

Rhoades had difficulty finding a contractor willing to go to Erzurum. In 1980 he awarded the first contract for construction. There was no local labor market, so the contractor had to bring in workers and build a dormitory to house them. Within months the project was behind schedule. EUD's Construction Division sent people on temporary assignment to help Rhoades process contract modifications. To help resolve persistent problems, the division's deputy commander, Col. Philip Cowles, and the assistant division engineer for intergovernmental affairs, William Camblor, went to Turkey in October 1981. On 5 October Cowles, Camblor, and Rhoades met with a Turkish colonel from the Ministry of Defense to review the construction problems in Erzurum and to discuss ways to facilitate construction contracting in Turkey.[68]

In a report of the trip, Colonel Cowles wryly described work in Erzurum: "The history of this project is at times amusing and at other times sad." The design package had been prepared in English by the division's design group in Italy. Only after problems arose did the contractor in Erzurum admit that neither the foreman nor any of the workers could read English or understand the plans or the specifications. Moreover, the designers projected a construction period for the contract of 600 days, despite the fact that Erzurum's severe weather limited construction to about 180 days a year.[69]

Cowles' report listed a number of requests that Rhoades had made, including cold-weather gear for his employees and racquetball kits. He also asked for semiweekly telephone calls placed from Frankfurt to Turkey, because long-distance telephone service from Turkey was unreliable. The report suggested revised procedures and concluded with an admonition:

> In the future we should plan and tailor our procurement, we should pre-qualify contractors if we are not sure of them, we need strong capable field people to deal with a problematic contractor and, in Turkey, we need government assistance to ensure materials are available to the contractor.… The entire project gives one the impression of building according to a standard prevalent in Korea in 1965 or in America, perhaps 50 years ago.[70]

*Army engineer projects in Turkey included the barracks in Cakmakli and this water tower* (inset) *under construction in Izmit.*

John Blake's experience with construction in Saudi Arabia and in Israel gave him a good understanding of Rhoades' problems. Some experienced and willing construction managers, including Richard Grimm, became available for the work in Turkey when the air base projects in Israel ended. Grimm had worked under Blake on the missile sites in North Dakota in 1972 and had been a resident engineer in the Stuttgart Area Office in the late 1970s before he worked in Israel. As the program in Israel wound down, Grimm contacted Blake, who offered Grimm the position as deputy area engineer in Turkey.[71] Grimm arrived at Incirlik in January 1982, when EUD upgraded TUSEG from a resident office to an area office. During the 1982 calendar year the number of people at TUSEG increased from nine to twenty-one. The workload increased from four projects under construction to ten ready for advertisement and an additional twenty-four under design.[72]

With improved procedures and more experienced staff, the TUSEG office awarded contracts for work at four other remote sites: Corlu, Ortakoy, Izmit, and Cakmakli. EUD had lump-sum allocations to rebuild these sites; over time he supervised complete rehabilitation, including underground utilities, at all five installations.[73] TUSEG managed to award contracts at about 50 percent of the estimates and as a consequence found that they had ample money to get the work done.[74]

By all accounts Captain Rhoades was exceptionally mature and energetic—"one of those outgoing people that just thrived on adver-

sity." Rhoades, his wife, and two children lived on the Incirlik base in an eight-by-forty-foot house trailer. Other TUSEG staff lived on the economy, frequently in buildings without central heating, sometimes without hot water. Electricity was unreliable, which meant that the availability of water was unpredictable. There was a long waiting list for commercial telephones.[75] The Society of American Military Engineers awarded Rhoades the 1981 Sverdrup Medal established in memory of distinguished military engineer Maj. Gen. Leif Sverdrup. The award recognized Rhoades' extraordinary achievements in building the area office and in directing construction in remote sites throughout Turkey. In July 1982 Rhoades left Turkey to work with the Construction Branch of the Office of the Deputy Chief of Staff, Engineer, at USAREUR in Heidelberg.[76]

## Tightening Organizational Control

Withers completed his tour as division engineer early in June 1983, and Brig. Gen. Scott B. Smith succeeded him. Smith had graduated from the U.S. Military Academy in 1956, the same year as Withers, and had served in Europe with the 12th Engineer Battalion from 1962 to 1965. Smith was assigned to OCE in 1973–1974 and served as district engineer in Huntington, West Virginia, from 1974 to 1977. Unlike any of his predecessors at EUD, he had experience as a division engineer: From 1980 to 1983 he commanded the North Central Division with headquarters in Chicago, Illinois.

By his recollection, Smith arrived at EUD with a definite management philosophy and what he characterized as a "fair amount of skepticism" that the organization was "on track." He asked a lot of questions, found that the answers were "not totally comforting," and concluded that EUD needed to shift its direction. Smith set for himself three principal tasks: shift the management attention of the division to the customer; improve relations with the Air Force; and improve internal procedures.[77]

For General Smith, all of his specific actions formed part of a plan to tighten the reins on the organization. To this end, he challenged a wide range of practices and procedures that he felt were hindering timely completion of work, detracting from achieving the mission, undermining discipline, or obstructing relationships with customers. He displayed intense concern about fraud, waste, and abuse, particularly in the procurement process and in the administration of contracts. An internal investigation revealed more than seventy-five instances of procedural irregularities that the division needed to send to Washington for review by USACE. Most were procurement irregularities, including unauthorized contract modifications that probably resulted from attempts by midlevel managers to get work done in a rush; none involved statutory violations. Revised procedures, training, and a greater emphasis on detail improved the situation.[78]

## Shifts in Emphasis and Direction

General Smith in 1987

From conversations with the chief of engineers, Lt. Gen. Joseph K. Bratton, Smith perceived a need to change the overall operating strategy of the division from an emphasis on architect-engineer selection boards and design reviews to construction that satisfied the customer. He believed that the elements of process, which are a necessary part of any project, ought not to be evident to the consumer, whose real concern was with the final product. He found that attention in EUD focused on the Engineering Division, which measured productivity in terms of design placement, rather than on the Construction Division, which emphasized completed projects.[79]

General Smith took several immediate steps to shift the division's emphasis and direction. He reinforced efforts General Withers had started to give the chief of construction and the area engineers more authority, resources, and independence. He wanted area offices to have a procurement operation, legal support, and some capability to work with the government agencies in the host nations.[80]

Smith also changed the rating procedure for area engineers. In EUD's first two years, the area engineers reported to the EUD Executive Office. During General Delbridge's tenure, the deputy division engineer, Col. Carlyle "Chuck" Charles, instructed the area engineers to report directly to the chief of the Construction Division, although Charles and his successors continued to give the area engineers their performance ratings.[81] In 1983 Army regulations changed to permit the division commander to delegate the rating function to a civilian. Smith thought that it made sense to give responsibility for rating area engineers to the chief of construction because it was Blake who regularly met with them. The change meant that Blake, who as an SES held the civilian rank equivalent to general officer, would do the officer's efficiency rating for the area engineers who were military and comparable performance evaluations for the civilian area engineers. Whatever apprehensions the area engineers had, the change was implemented without protest. The commander of EUD, a general officer, remained the senior rater.[82]

General Smith broadened the division's senior leadership group to include the equal employment opportunity (EEO) officer, the personnel

officer, division counsel, and the chief of procurement and supply. He encouraged each participant in staff meetings to draw from his or her professional and life experiences solutions to the problems and challenges of the division. Smith also asked Blake to make sure that he took support elements, especially Joanne "Jodie" Close, the EEO officer, with him to the area offices, particularly the remote offices in Turkey and Greece.[83]

### *The Air Force as Customer*

Shortly before General Smith assumed command at EUD, he attended a professional meeting with General Bratton, who was known for his low-key, soft-spoken style. According to Smith, Bratton drew him aside and said, "There's a guy here that I want you to meet, and it's very important to me that you get to know him." Introducing Smith to Air Force Brig. Gen. Joseph "Bud" Ahearn, Bratton said, "You and Bud are going to get to be good friends." Smith concluded, "That was his way of telling me, 'Make sure the Air Force knows you love them, and make sure the Air Force gets prime support.… Don't forget the guys in blue.'"[84]

About the time that Smith was assigned to head the Europe Division, Ahearn took over as base civil engineer at Ramstein Air Base in Germany and as chief of engineering services for United States Air Forces in Europe (USAFE). The Air Force had been a major customer of centralized contract construction in Europe since the days of USACAG. Over many years an attitude had developed that one division engineer summarized: "The Air Force is a very difficult customer in general for the Corps of Engineers." A chief of contracting admitted: "You'd be hard-pressed to find somebody [in EUD] that's a real fan of the Air Force."[85] Differences in procedure between the two services in handling both contracts and money and the Air Force's latitude in shifting funds from one project to another gave the "appearance of [their] not having a long-range, coherent program."[86]

General Withers had encountered difficulty with his counterpart in the Air Force, Brig. Gen. Sheldon J. Lustig. As chief of engineering services for USAFE, Lustig "indicated a strong desire" to get EUD out of NATO projects for the U.S. Air Force. In May 1982 Withers reported that execution of Air Force work continued to be late because of "late receipt of design instructions and criteria," conditions for which he held the Air Force, not EUD, responsible.[87]

General Smith strove to overcome the prevailing negative attitude toward the Air Force and to develop a good working and personal relationship with General Ahearn. Smith reinstituted the system of assigning one EUD deputy solely to the Air Force work and the other to the Army projects, a measure designed to establish that work for the Air Force was as important as what the division did for the Army. Col. Donald E. Hazen became "Mr. Air Force," and Smith again offered Ahearn the services of the division in support of Air Force construction under the NATO Common Infrastructure Program. Smith held team-building sessions with both USAREUR and USAFE to demonstrate that EUD had valuable servic-

es to offer the "total military family." Within six months Smith reported notable improvement in the relationship.[88]

### EUD Wartime Responsibilities

One of several agreements signed in 1974 by the commander in chief of USAREUR and the chief of engineers stipulated that the Europe Division would provide engineering services to USAREUR in the event of war. Variously referred to as contingency planning or mobilization planning, the function received little attention during EUD's early years. The issue of mobilization became a major concern of strategic thinkers in the late 1970s. Their debate turned around whether the next war would be a quick, short engagement, such as the Arab-Israeli War of 1973, or a longer, more protracted campaign that would require total mobilization of the enormous economic and industrial resources of the United States.[89]

Most of this debate bypassed EUD as the division focused on the expansion of design and construction activity, although stateside divisions had been involved in planning and exercises for mobilization. General Smith, having served as commander of the North Central Division before coming to Frankfurt, addressed this concern. In October 1983, within weeks of his arrival, Smith established a separate staff element to develop and coordinate mobilization and wartime planning.[90]

General Smith's emphasis on planning for mobilization and wartime coincided with his broader intent to reinforce EUD as an Army unit. From the conduct of division staff, he concluded that EUD employees were "pretty lax in the way they thought about war." USAREUR personnel wore battle dress uniforms and engaged in field exercises, but EUD never participated. He also objected to the way the division's military personnel dressed:

> [They wore] their green uniforms like it w[as] Chicago or Vicksburg or San Francisco.… It just seemed to me a complete incongruity not to be aware of the fact that things could go wrong. I had been in Europe during the first Berlin crisis as a captain. I was aware of the fact that things could go pretty wrong without a whole lot of warning.[91]

In March 1984 General Smith went to Washington to develop with the USACE staff a detailed mobilization plan for EUD. In June he went to Heidelberg for similar meetings with the USAREUR staff. By July the Europe Division, USAREUR, and USACE had a draft agreement to implement a mobilization plan.[92] The military personnel serving in EUD would be bound by any mobilization order; certain civilian positions were designated "emergency essential" so the incumbents would remain in service in the event of mobilization. During mobilization, EUD would place its operations at USAREUR's disposal "so that we would use our expertise to contract with the host nation for construction supply services."[93]

## Assessing EUD Management

Without doubt it was General Smith's personal style, rather than any organizational changes he instituted, that had the most significant impact on the people at EUD. He was intense, demanding, and abrupt. He worked very long hours, and some called him driven. The people he met with regularly became familiar with his impatience and intolerance for imprecise answers. Some staff members were angered or frightened by his aggressive style; from others it elicited respect.

The division counsel, Allan Aaron, was one of the latter. Aaron had worked in Corps district and division offices in the United States (North Central, Albuquerque, and Detroit) before he came to the Counsel's Office in the Engineer Command in 1973; after the death of Leonard Phillips in 1976, Aaron was promoted to division counsel. Aaron worked with Smith on cleaning up the procurement irregularities and won Smith's confidence. Smith gave him other special assignments, such as chairing a task force on automation. Aaron was often the target of Smith's outbursts of frustration, but with a distinct purpose:

> In a public forum, when I wanted to jerk somebody's chain so that everyone *else* would get a certain message, Al's chain would get jerked. Normally it was about something that many people besides Al had had a hand in. Maybe Al didn't even know what it was all about. But others would see [him as] the good-hearted and constructive recipient of a spur to the flank and would, I believe, be impressed and themselves motivated by his unfailingly positive responses.[94]

Aaron apparently understood Smith's intentions and his own role. He later affirmed that he "would go anywhere and do anything [for General Smith].… I really feel very strongly that General Smith was one of the high points in my career with the Corps of Engineers." Hasso Damm, long-time chairman of the Works Council, felt that Smith never acted capriciously and that he respected workers' rights. Damm thought that USACE "did the right thing by sending General Smith [to EUD]."[95]

By contrast, most of EUD's personnel failed to see the vision for the division that Smith had formulated so clearly in his own mind. With the expectation that he would be at EUD for two, possibly three years, Smith applied intense pressure at the outset. The commander expected to be able to ease that pressure once he had the entire staff moving as a team in the proper direction. Smith reflected:

> It is infinitely more suitable to be fairly rigorous and demanding up front, and then, as the situation allows, to become comradely and more relaxed, as opposed to coming in, being everybody's friend, and then finding out that something is not being done as well as everyone would wish—and then trying to turn up the heat on that particular part of the operation.[96]

Smith and the Europe Division never had the luxury of time that might have allowed the organization to settle down after his harsh interventions. After less than a year in Frankfurt, Smith was promoted to major general and reassigned to Heidelberg as USAREUR's deputy chief of staff, engineer. He left behind an organization in which most of the staff felt profoundly discomfited by his aggressive management style and actions.

## Change of Command

Smith's successor, Brig. Gen. James W. van Loben Sels, who came directly from commanding the North Pacific Division of the Corps of Engineers, arrived in July 1984. Van Loben Sels' European experience had begun with the 23d Engineer Battalion, to which he was assigned from 1960 to 1963. In 1975 he had returned to West Germany, to the office of DCSENG. During that assignment he participated in planning the new Army garrison in Garlstedt in northern Germany. He remained in Europe from 1977 to 1981 as commander of the 18th Engineer Brigade, which included the combat heavy engineer battalions and a labor service group. A majority of the brigade's troop construction was done in support of the DEH, but the brigade also assumed a major responsibility in the planning and preliminary work on the range upgrade in Grafenwöhr. Van Loben Sels had asked that his tour with the 18th be extended to a third year so he could complete a full phase of the work in Grafenwöhr.[97]

Soft-spoken, gentlemanly, and reserved, General van Loben Sels' demeanor was a relief from the intensity of General Smith. The staff quickly recognized his keen intelligence and excellent memory; they appreciated his directness, precision, and calm authority, which they perceived as a sharp contrast with Smith's volatility.[98] He approached his command quite differently from his predecessor, because of basic differences in personality and because he took into account Smith's impact:

> I found an organization that had had its socks pulled up.… I came in with a different style. I came in with a view of going for the long-term, a three-year commitment, to build on the energy, if you will, that [Smith] had built up. Then [I] attempted to shape the organization, heal the wounds that seemed to be around the battlefield, and focus on the long-term.

He focused his attention on morale, organizational structure, and the need to develop a sense of identity for this large and geographically dispersed organization. He wanted to promote the organization, to "build a team from this group of folks, some of whom were fighting with one another … and to cope with this huge workload."[99]

To improve morale and the organization's self-image, General van Loben Sels arranged social events, such as dances, parties, and a Christmas ball, to which every member of the staff was invited. Such gala gatherings had not taken place in recent experience. "We brought them

all together," van Loben Sels recalled, "and we had our uniforms on—dress uniforms. Most of them had never seen us in our military dress uniform."[100]

*General van Loben Sels*

Van Loben Sels' promotion to major general offered another opportunity to build up the division's self-image. Like several of his predecessors, he was promoted during his command at EUD, but, as Damm noted, "He was the first one to make it into a great ceremony."[101] Van Loben Sels asked the V Corps commander for a parade, and he invited representatives from the German government and military, German construction agencies, and U.S. military commanders, including General Ahearn from the Air Force. At the ceremony on the parade grounds, the chief of engineers, Lt. Gen. E. R. Heiberg III, pinned on van Loben Sels' second star. After the parade and ceremony General van Loben Sels and his wife hosted a reception at their quarters in Bad Vilbel.[102]

## Organizational Structure and Data Systems

In addition to ceremony as an enhancement to self-image and morale, van Loben Sels turned his attention to the structures through which EUD operated: the division's organizational framework and its use of information processing systems. Shortly after he arrived at the division, van Loben Sels launched a study of the division to identify an organizational structure best suited to accomplish its mission. A study team from the U.S. Army Engineer Studies Center (ESC), an agency of USACE located at Fort Belvoir, Virginia, worked with an advisory group at the division to consider a wide range of issues: goals, problems, current and projected peacetime volume of work, geographical boundaries, operating environment, host-nation responsibilities, potential wartime mission, and requirements for interacting with customers. After the division's executive committee reviewed the ESC study in February, the final report was published in April 1985.

The study concluded that EUD's problems could be "summed up in three words—it's too big." The report continued: "No internal reorganization will resolve its physical space problems; no centralized operating division structure can service so many varied clients responsively. [EUD

should adopt] the traditional USACE decentralized division HQ/district structure, but with some modifications."[103] Specifically, the report recommended that EUD have a division headquarters in Frankfurt with district offices in Frankfurt, Kaiserslautern, and Stuttgart. Only Turkey would remain as an area office.

General van Loben Sels rejected the recommended organizational structure. He was not convinced that the volume of work would remain high enough to make the costs of reorganization acceptable, and he reasoned that the overhead required by the district structure would be very high. Instead, he continued to decentralize by giving more authority and additional resources to the area engineers. By enhancing the authority of the division's area offices, van Loben Sels hoped to eliminate administrative bottlenecks and achieve greater productivity, thus accomplishing what the report recommended without the costs of the reorganization.[104]

General van Loben Sels also established a study group of senior division personnel to address automation. He saw this effort as building on the study by the ESC that had identified the paucity of automated data processing (ADP) in the division as a serious problem. The ESC study was particularly critical of support to the area offices, noting the "minimal utilization of ADP capability and communication from the division offices to the field." Furthermore, "The [ADP] environment is archaic, even compared to Corps standards. ADP equipment is scheduled to be placed in the field in the near future, but there does not appear to be any plan to provide standard programs, the required ADP skills to utilize the equipment, or specific guidance on utilization."[105]EUD's experience with data processing had been unsatisfactory long before van Loben Sels initiated his study. The division's first commander, General Prentiss, had had little success in bringing the new organization into conformity with Corps of Engineers use of two automated reporting systems, COEMIS (Corps of Engineers Management Information System) and AMPRS (Automated Management Progress Reporting System). The systems had been designed with no regard for the division's unique requirements, and their implementation was complicated because of EUD's distance from Washington and the frequent turnover of branch chiefs and operators.[106]

COEMIS recorded accounting data and produced reports on the financial results of operations and on current or updated financial conditions. In investigating possibilities for implementing COEMIS in 1975, EUD staff learned that the computer hardware on hand was incompatible with the software. Furthermore, it was not feasible to change hardware and retrain staff, nor was COEMIS able to handle the division's special requirements, particularly tracking the different categories of employees (DACs, local nationals in several countries, local hires) and the multiple currencies in which the division conducted business. EUD decided to use the Measurement Information Data Acquisition System project management software developed at the Fort Worth District and to set up an interim finance and accounting system. EUD's commander in the late 1970s,

General Wilson, planned to complete conversion to the COEMIS system in fiscal year 1979, but the division did not meet the target date.[107]

Discussions of the applicability of AMPRS, a system for monitoring execution of the total construction program, paralleled the discussions of COEMIS. Implementation of AMPRS did not begin until 1977. EUD staff supplied managers in Washington with information showing the modifications needed to make the software usable in Europe. When the division finally began to use AMPRS in 1978, the system failed to meet its needs. The software's shortcomings were not restricted to EUD. Fewer than half of the seventeen districts using AMPRS—those that already had a strong in-house computer staff—reported finding it useful.[108]

In the summer of 1980, as General Withers prepared to take command of EUD, the deputy director of resource management in Headquarters, USACE, told him that the Europe Division was the only part of the Corps that had not been integrated into COEMIS's finance and accounting module. Withers decided that he needed to upgrade the position of chief of the Resource Management Office and to recruit civilians from the United States who had experience with this software. During the next two years, Withers emphasized implementing COEMIS, a goal the division finally achieved by the end of fiscal year 1982. When Withers completed his tour, the division had also installed an automated funds control system.[109]

When General Smith took command of EUD, he also perceived the value of automation, particularly as a tool to connect the area offices with division headquarters in Frankfurt. The staff had widely divergent levels of computer expertise, and Smith did not want the most computer-competent persons to dominate the EUD decision-making process. He asked the division counsel, Allan Aaron, to convene a task force to weigh the best uses of the technology for EUD. The committee continued after Smith's departure to develop a plan for purchasing and installing IBM-compatible microcomputers at headquarters and in the field offices.[110]

The information systems planning team formed by General van Loben Sels continued studying COEMIS and AMPRS. In 1985 it articulated a new level of insight: EUD's problems implementing the Corps of Engineers software programs stemmed from the character of the systems themselves. They were reporting systems, not management systems. The systems collected information only for reporting up the chain of command; the data were not used in the day-to-day management of projects or personnel or to assess trends and anticipate needs. Thus EUD's project and construction managers had little practical use for AMPRS and COEMIS and little incentive to make reporting a priority. Van Loben Sels' study team also acknowledged that "there is, and always has been … a perceived lack of data integrity in AMPRS."[111]

When General van Loben Sels reviewed the status of automation at the division in 1985, computer hardware consisted of an in-house Harris 800 super-minicomputer and an assortment of microcomputers acquired in 1984 and distributed throughout the division, including to the field offices. Under the supervision of the ADP office, EUD was using standard

Corps of Engineer software applications, including AMPRS and COEMIS. The microcomputers had word processing, spreadsheet, and database software. The word processing center, established by General Delbridge in 1977 with the Wang hardware-software system, remained under the purview of the Office of Administrative Services, rather than the ADP center, and it was not heavily used. New technology had made the very idea of a dedicated word-processing "typing pool" out of date.[112]

To assess EUD's data processing needs, General van Loben Sels decided to use the IBM Information Systems Plan, a structured planning approach by which organizations examined their business processes to determine what data were needed before they looked at automation. The objective was to develop a plan that would satisfy the short- and long-term requirements for information within the organization. Van Loben Sels conjectured that this process would engage the staff throughout the organization and facilitate planning. The information systems planning study did help the staff understand business processes, but General van Loben Sels did not find that it significantly improved automation. Nearly a decade later he expressed disappointment in the results of the study process.[113] Nonetheless, the team's recommendation and a Department of the Army directive prompted EUD to establish an Information Management Office that combined ADP operations, programming functions, and word-processing activities, and included communications, records management, visual arts, libraries, and printing and publications. The new office opened on 1 April 1986, months after van Loben Sels' departure.[114]

Despite a desire to stay at EUD for three years, General van Loben Sels was reassigned after only fifteen months. In late September 1985 he assumed command of Fort Leonard Wood, Missouri. On the short tenures of Smith and van Loben Sels, Hasso Damm reflected: "The sequence of the two made out of the shapeless organization a formed organization, first shaking up, and then [taking] the shaking portions and put them together again in one body."[115]

## Stability Achieved

The chief of engineers, General Heiberg, tapped Brig. Gen. James W. "Bill" Ray, commander of the Middle East Division, to fill the unexpected vacancy in Frankfurt, making Ray the fourth division engineer at EUD in as many years. The mammoth construction program managed by the Corps in Saudi Arabia was drawing down, and General Ray had received orders to move to the division's rear headquarters in Winchester, Virginia. Instead of returning to the United States, he moved to Frankfurt.[116] Ray's previous assignments included district engineer in Omaha; assistant commandant, U.S. Army Engineer School; commander, 35th Engineer Battalion in Vietnam; and assistant director for civil works in Headquarters, USACE. He had also served as chief, Forces Modernization Division, and as secretary of general staff of USAREUR.

From the outset, EUD staff perceived General Ray as open, friendly, and outgoing—someone "you could talk to." He had a good sense of humor and was very sociable; he and his wife participated frequently in ski trips and outings organized by a volunteer committee in the division. Although not a forceful public speaker, Ray had good communication skills; area engineers and field staff respected his knowledge of construction.[117]

One segment of the staff felt especially close to General Ray—the people who had worked for the Corps on the construction program in Saudi Arabia. During the drawdown in Saudi Arabia, General van Loben Sels had encouraged EUD to hire people leaving the Middle East Division; as a result, the division had several dozen "Saudi people." A special camaraderie existed within this group, and they included General and Mrs. Ray in the "Saudi parties." Some division staff resented the close social circle maintained by the people from Saudi Arabia.[118]

As a manager, General Ray disliked ad hoc actions and pressed the staff to develop systems. He practiced participatory management, respected the opinions of his staff, and paid special attention to working conditions and staff morale. General Ray adopted the two goals that General van Loben Sels had articulated for the Europe Division: (1) construct excellent facilities that are on time, within budget, attractive, and maintainable; and (2) be an excellent organization. Ray wanted to make EUD a place where people would want to come to work every day; his long-term goal was to develop a plan for the division for the 1990s.[119] With these goals and his systematic approach to management, General Ray guided the Europe Division through several organizational changes and instituted an innovative program that focused staff attention on quality and excellence.

## *Organizational Changes*

Several significant organizational adjustments occurred during General Ray's tenure at EUD. Following Army directives, the division established the Information Management Office and the Logistics Management Office, which handled transportation services and some functions previously performed by the Office of Administrative Services.[120] Ray redefined the responsibilities of the division's deputies in an attempt to consolidate and clarify contracting authority within the division. He also redistributed the activities related to intergovernmental affairs when long-time employee William Camblor retired.

General van Loben Sels had asked the chief of engineering, Joe Higgs, to reorganize the Project Management Branch in his division by geographic areas. Van Loben Sels wanted project managers to work more closely with individual directors of engineering and housing. He also wanted each director of engineering and housing to have a single point of contact in engineering at EUD.[121] Higgs resisted the reorganization because this structure made balancing the workload among project managers more difficult. Nonetheless, during General Ray's tour, Higgs effected the changes.[122]

General Ray

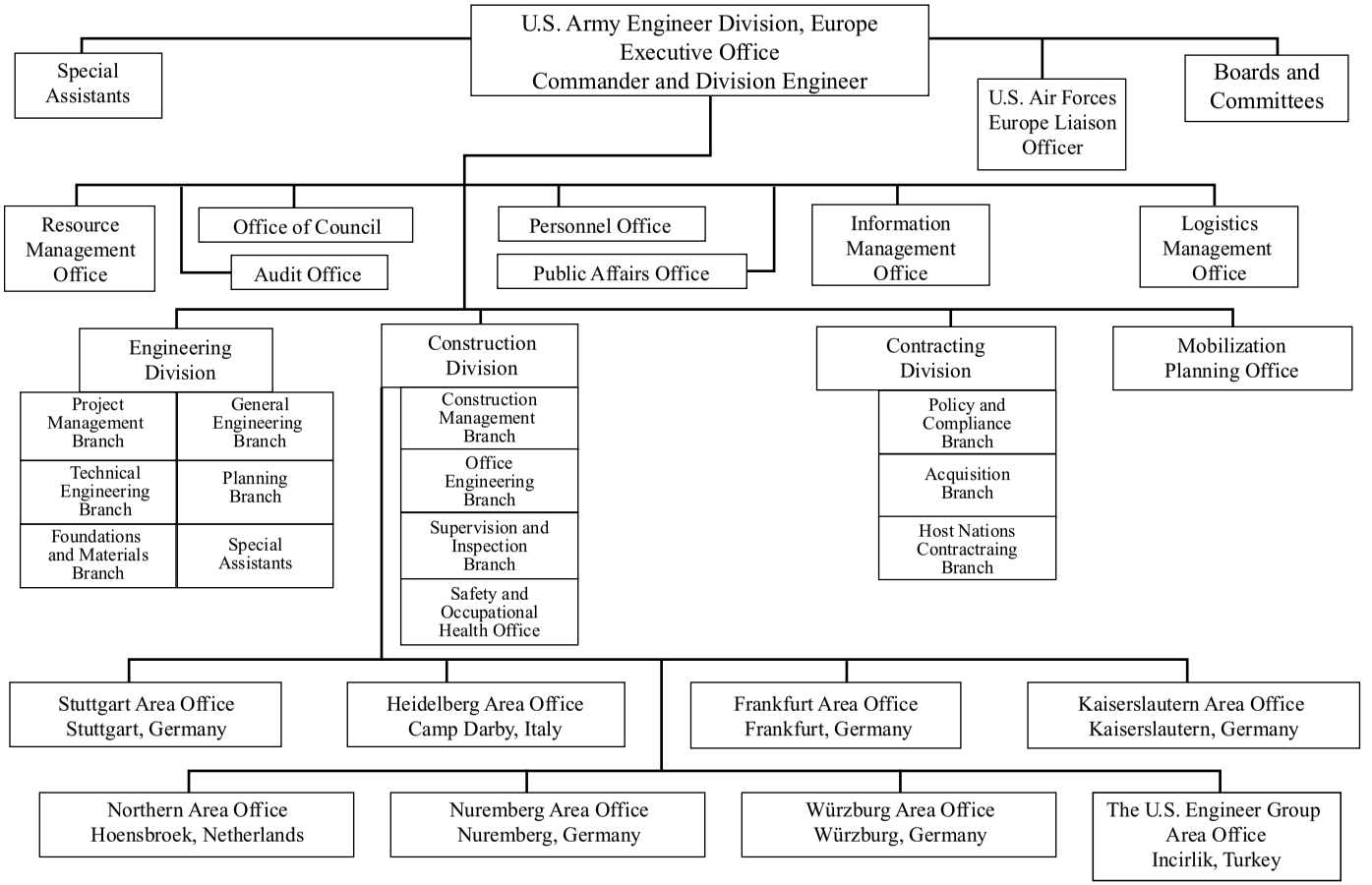
In January 1987 General Ray approved a reorganization of the Construction Division aimed at placing responsibility for day-to-day problems with midlevel supervisors, allowing branch managers to concentrate on long-range planning. (*Chart 11*) The chief of construction, John Blake, served as the catalyst for this reorganization, which finally took place after a year of consultations with USACE headquarters in Washington. The reorganization established three branches within the Construction Division: Office Engineering, Construction Management, and Supervision and Inspection. Except for medical facilities, certain unique projects, and contract modifications of more than $100,000, the division gave the field offices authority to administer these contracts without referring issues back to headquarters for decisions.[123]

Soon after General Ray arrived, he began to examine the roles of the two deputies, particularly in reference to their authority over contracting. From the beginning of the division, both deputies had contracting authority; since 1983 one deputy had handled contracts for the Army program, the other for the Air Force program. The 1985 report by the Engineer Studies Center identified the involvement of two deputies in contracting as a management problem. Because each deputy processed over 1,000 contracts each year, both were overwhelmed by their operational responsibilities. The report observed, "No one is planning because they are too busy performing operations."[124]

The system also created potential conflicts of interest, because a deputy worked with the customer/user and then signed the contracts involving the same clients. After consulting with Division Counsel Aaron, Higgs, Blake, and the chief of contracting, Richard Wisdom, General Ray decided only one deputy and the chief of contracting should have contracting authority. In June of 1986 Ray appointed the deputy division engineer, Col. John Moravec, with contracting authority. Moravec had already served for fifteen months in EUD as assistant commander for DEH support. General Ray gave his other deputy, Col. Dennis Culp, responsibility for management and planning.[125]

Ray also transferred additional contracting authority to the area engineers and put lawyers in five area offices: Stuttgart, Kaiserslautern, and

## Chart 11: Organization of the Europe Division, July 1988



*Construction of recreational facilities provided opportunities for social outings, such as ski trips to Garmisch.*

Frankfurt in Germany; TUSEG in Turkey; and the Northern Area Office now located in the Netherlands. The lawyer in Stuttgart also served the area offices in Nuremberg and Würzburg. This reorganization reversed the centralization that had taken place in 1980 when the lawyers from the Mediterranean and Stuttgart Area Offices were reassigned to headquarters in Frankfurt. Ray assigned supervision and oversight of the Office of Counsel and its supporting elements in the area offices to Moravec.[126] This reorganization gave EUD's area offices independence in contracting comparable to the authority of districts in the United States. Because it was an innovation within the Corps of Engineers, the measure required USACE approval.[127]

General Ray sought to add flexibility to contract administration by promoting and improving the use of indefinite delivery (open-ended) types of contracts. The division negotiated prices for various services with selected architect-engineer firms and signed contracts up to a maximum of $500,000. When a community had a project costing less than $50,000, the director of engineering and housing only specified the services he needed on a delivery order to the firm under contract and the firm began the work. The indefinite delivery contracts eliminated the need to negotiate a separate contract for each small job. The architect-engineer firm could deliver services on individual projects up to the maximum amount of the contract.[128]

In 1986 the division received permission to allow a second-year extension to the contracts with architect-engineer firms, and the directors of

engineering and housing received permission to write delivery orders up to $85,000. These new procedures reduced administrative labor, particularly the hundreds of hours of overtime normally expended to prepare and place contracts at the end of a fiscal year. In 1988 EUD held seminars to bring together architect-engineer firms and the engineering staffs from military communities to familiarize everyone with the regulations governing the indefinite delivery contracts.[129]

### *Intergovernmental Affairs*

The retirement on 4 July 1987 of Camblor, deputy division engineer for intergovernmental affairs, necessitated a reorganization. Camblor had served in Europe continuously since 1944, first as an Army officer and then for forty years as a civilian in the military construction organizations that had preceded EUD. During this long career, Camblor won a number of awards, including designation as a distinguished post member of the Society of American Military Engineers in Frankfurt in 1977, a decoration for Meritorious Civilian Service in 1985, and the Exceptional Civilian Award from the Secretary of the Army in 1987. From 1983 until his retirement he served as chairman of the Sending States Construction Group, which included representatives of the six NATO nations that had troops in the Federal Republic of Germany. In recognition of his extraordinary career, Camblor was honored with a formal retirement ceremony on the grassy area in front of the Phillips Building. Officials from USAREUR, V Corps, and a number of the NATO host nations attended the ceremony. U.S. military units marched, and a German army band played. At his retirement dinner, Camblor received medals from several nations, including the Federal Republic of Germany, whose minister of construction presented him with *Das Grosse Deutsche Verdienstkreuz* (The German Grand Service Cross). After the ceremony, EUD hosted a retirement dinner at the officers' club.[130]

General Ray and others described Camblor as "a unique asset to the organization" and "essentially irreplaceable."[131] Because the division could not fill the SES position that Camblor had held nor replace his years of experience, Ray chose to divide Camblor's responsibilities three ways. The chief of engineering, Higgs, was named deputy division engineer for intergovernmental affairs and designated to attend meetings of the Sending States Construction Group. Camblor's former assistant, Michael Mele, reported to Higgs. The chief of construction, Blake, took over responsibility for activities in the technical area, and the division counsel, Aaron, conducted the negotiations with foreign nations required to implement new programs, in addition to interpreting the intergovernmental agreements.[132]

### *Focus on Customers and Quality*

Early in his tour at EUD, General Ray took up the 1986 USACE theme, "Leaders in Customer Care." Generals Smith and van Loben Sels had

emphasized the importance of satisfying customers by delivering a high-quality product, but neither commander had established a specific program. General Ray chose Total Quality Management (TQM), a program developed by the 3M Corporation, as the vehicle for making customer care a top priority for the division. Ray proposed that EUD develop a TQM program and appointed Colonel Moravec as quality director to spearhead the effort.[133]

At a three-day conference of the division's managers in January 1987, General Ray reminded them that President Ronald Reagan had issued a directive requiring all federal government agencies to become 20 percent more productive by 1992. Ray stressed that the division could be a leader in customer care while meeting the president's goal. A spokesman for 3M Corporation explained the Total Quality Management concept. A few weeks later thirteen supervisory-level employees from EUD attended a five-day workshop on TQM at 3M headquarters in St. Paul, Minnesota. They returned to Frankfurt as trained facilitators, eager to implement a modification of the program they dubbed EUD Quality Management (EQM).[134]

In 3M's terminology, *quality management* is a process that focuses on people, not on products:

> EQM is designed to provide a new culture to the Division and every employee who works here. Its deceptively simple process is to do right things right. And at the basis of the program is the goal of 100 percent conformance to customer's expectations. That is, if our customer expects us to be able to do it, we will do it—100 percent of the time. If we cannot do it, we will change our customer's expectations.[135]

Total Quality Management defines a customer as any person within an organization who expects work products from other employees.[136] EQM challenged the very nature and orientation of the personnel at EUD:

> The organization has been product-oriented for so long that to talk about being customer-oriented is a major change. That doesn't mean you ignore the product, but there is more to meeting customer expectations than delivering the product. It's the manner in which we deliver the product.… It's how we explain to the customer what we can and what we cannot do.[137]

During 1987 and early 1988 articles in every issue of the *Corps Line* explained EQM, gave the reactions of staff, and reiterated the importance of quality. General Ray asserted often that training employees was "the most important thing we are going to do in EUD in the next two years."[138] In the first phase of EQM's implementation, every employee participated in a mandatory full-day session. The first group of facilitators trained others; in August 1987 a second group of facilitators was trained. By

September, more than 800 people had participated in a session that covered the concepts, principles, and skills of EQM. Personnel throughout the organization responded enthusiastically, discovering that the program generated a lot of energy by providing all employees with an opportunity to be included in the management of the organization.[139]

To explain the need for EQM, General Ray used a parable, the story of the frog in a pot of water. The frog, Ray recounted, is an adaptable creature that adjusts his body temperature to his environment. Whether the water is hot or cold, the frog adjusts until he is comfortable. In a pot of water over a fire, the frog is a slave to his proven routine and continues with the same response as the heat increases. By the time the water reaches a boil, the frog has adjusted himself right into oblivion. "The heat is on for organizations that want to succeed in these changing times," Ray told his staff. "To be successful, organizations must change with the environment" and find new ways to adjust or risk ending up like the boiled frog. The frog became the unofficial emblem of Ray's leadership, and he was inundated with gift frogs. The story of the frog conveyed a serious message—what worked in the past might not work in changing times. Productivity and its ability to attract customers would be the measure of EUD's success in an increasingly competitive environment.[140]

By the autumn of 1987 the EQM initiative attracted the attention of the deputy assistant secretary of defense for installations, Robert A. Stone, who singled out the division for special commendation. The following January EUD provided a display describing EQM for the Department of Defense's Productivity Month celebration in the Pentagon. In his spring 1988 visit to Frankfurt, the chief of engineers, General Heiberg, praised the program, saying, "General Ray did not invent the word quality, but [he] has put new meaning into the word."[141] In May 1988 Ray was able to report that Secretary of Defense Frank Carlucci had signed up for the TQM process, "and he has ordered this division to continue working on total quality management."[142]

General Ray strove to make EUD a place where people wanted to work. To advance this goal, he introduced physical changes in the working environment. He had the division replace the old gray metal desks and file cabinets with space-saving modular office furniture.[143] To emphasize his belief in the importance of the division's work, and to record division activities and work in a tangible and easily accessible form, Ray allocated funds for this history of the Europe Division and its predecessor agencies.

General Ray perceived the implementation of Total Quality Management as the most far-reaching change he would make as Europe Division engineer.[144] The concept incorporated his values by emphasizing the positive, building team spirit, and engaging everyone across departments, nationalities, and civil service grades. The energy, enthusiasm, and cooperation generated by participation in EQM added to the loyalty and confidence General Ray personally inspired in those who served with him at EUD.

In the spring of 1988 the Europe Division was operating smoothly and the staff felt optimistic. Construction placement for the fiscal year ending 30 September 1987 had been an all-time high of $527 million; leaders expected placement for fiscal year 1988 to be even higher. EUD workforce numbered nearly 1,200 in headquarters and in eight area offices: Frankfurt, Northern Area, Stuttgart, Kaiserslautern, Nuremberg, Würzburg, Heidelberg, and Turkey.